ABSTRACT

The present invention provides for accelerating the generation of graphical images that include shadow effects by, for example, reducing the amount of data transmitted and/or stored necessary to render graphics based on stencil shadow volumes. In one embodiment, an exemplary apparatus is configured to render shadows using stencil shadow volumes. The apparatus includes a memory to store a degree of shadowing for each sample. A co-processor, which is coupled to the memory, is configured to generate an indicator that represents a common degree of shadowing associated with the subset of samples. In some cases, the apparatus includes a graphics processing unit ("GPU"), which is coupled to the co-processor, that is configured to render one or more shadows for a computer-generated image based on the indicator.